

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 02/13351

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A63B41/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 752 890 A (IKEMOTO HISASHI ET AL) 19 May 1998 (1998-05-19) column 2, line 43 - line 67 column 3, line 65 -column 4, line 21; figure 2	15
X	US 4 856 781 A (SUMIDA HIDEKI ET AL) 15 August 1989 (1989-08-15) cited in the application column 4, line 50 -column 6, line 5 column 8, line 53 -column 9, line 13; claim 1; figures 5,15-20	15
X	US 4 239 568 A (TAKAZAWA KAZUYASU) 16 December 1980 (1980-12-16) cited in the application column 1, line 67 -column 2, line 51; figures 3-10	15
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

*** Special categories of cited documents :**

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the International search

20 August 2003

Date of mailing of the International search report

28/08/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 340 3016
Fax: (+31-70) 340-3016

Authorized officer

Lundblad, H

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP 02/13351

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01 83047 A (DOBROUNIG OTTO ;MOLTEN CORP (JP); SHISHIDO HIDEOMI (JP); ADIDAS IN) 8 November 2001 (2001-11-08) the whole document ----	1-15
A	US 5 772 545 A (OU TSUNG MING) 30 June 1998 (1998-06-30) the whole document ----	1-15
A	DE 200 19 244 U (HUANG CHAO CHIN) 25 January 2001 (2001-01-25) the whole document -----	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 02/13351

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5752890	A	19-05-1998	CN 1129597 A , B DE 69517644 D1 DE 69517644 T2 EP 0705624 A1 HU 72370 A2 JP 3390586 B2 JP 8155055 A	28-08-1996 03-08-2000 02-11-2000 10-04-1996 29-04-1996 24-03-2003 18-06-1996
US 4856781	A	15-08-1989	JP 62236568 A CN 87100181 A , B CN 1036704 A , B	16-10-1987 29-07-1987 01-11-1989
US 4239568	A	16-12-1980	JP 1200498 C JP 54104939 A JP 58029112 B	05-04-1984 17-08-1979 20-06-1983
WO 0183047	A	08-11-2001	WO 0183047 A1 EP 1278579 A1	08-11-2001 29-01-2003
US 5772545	A	30-06-1998	US 6390941 B1	21-05-2002
DE 20019244	U	25-01-2001	DE 20019244 U1	25-01-2001